

Choose 10
Procedures (45 points):
Solve the following equations

$$1.) x + 3 = -8$$

$$\begin{array}{r|l} -3 & -3 \\ \hline x & -11 \end{array}$$

$$x = -11$$

$$2.) 5x - 17 = 33$$

$$\begin{array}{r|l} +17 & +17 \\ \hline 5x & 50 \\ \hline x & 10 \end{array}$$

$$x = 10$$

$$3.) 14 = -x - 9$$

$$\begin{array}{r|l} +9 & +9 \\ \hline 23 & -x \\ \hline -23 & x \end{array}$$

$$-23 = x$$

$$4.) 18x - 13 - 5x = 13$$

$$\begin{array}{r|l} 13x - 13 & 13 \\ +13 & +13 \\ \hline 18x & 26 \\ \hline x & 2 \end{array}$$

$$x = 2$$

$$5.) \frac{x}{4} = -12 \cdot 4$$

$$\begin{array}{r|l} x & -48 \\ \hline x & -48 \end{array}$$

$$x = -48$$

$$6.) 4x - 9 = -6x + 21$$

$$\begin{array}{r|l} +6x & +6x \\ \hline 10x - 9 & 21 \\ +9 & +9 \\ \hline 10x & 30 \\ \hline x & 3 \end{array}$$

$$x = 3$$

$$7.) -x = -15$$

$$\begin{array}{r|l} x & 15 \\ \hline x & 15 \end{array}$$

$$x = 15$$

$$8.) -3(x + 1) = -15$$

$$\begin{array}{r|l} -3x - 3 & -15 \\ +3 & +3 \\ \hline -3x & -12 \\ \hline x & 4 \end{array}$$

distribute!

$$x = 4$$

$$9.) 1 = \frac{x}{7} - 6$$

$$\begin{array}{r|l} +6 & +6 \\ \hline 7 & \frac{x}{7} \\ \hline 49 & x \end{array}$$

$$x = 49$$

$$10.) -3 + 6x = 3(x - 4)$$

$$\begin{array}{r|l} -3 + 6x & 3x - 12 \\ -3x & -3x \\ \hline -3 + 3x & -12 \\ +3 & +3 \\ \hline 3x & -9 \\ \hline x & -3 \end{array}$$

distribute

$$x = -3$$

$$11.) x - \frac{6}{7} = \frac{9}{7}$$

$$\begin{array}{r|l} +\frac{6}{7} & +\frac{6}{7} \\ \hline x & \frac{15}{7} \end{array}$$

$$x = 2\frac{1}{7}$$

$$12.) x - 1 + 3x - 1 = 2x + 8$$

$$\begin{array}{r|l} 4x - 2 & 2x + 8 \\ -2x & -2x \\ \hline 2x - 2 & 8 \\ +2 & +2 \\ \hline 2x & 10 \\ \hline x & 5 \end{array}$$

$$x = 5$$

$$13.) 3 + 3(2x + 5) = 6$$

$$\begin{array}{r|l} 3 + 6x + 15 & 6 \\ 6x + 18 & 6 \\ -18 & -18 \\ \hline 6x & -12 \\ \hline x & -2 \end{array}$$

distribute

$$x = -2$$

$$14.) -6x + 1 = 25$$

$$\begin{array}{r|l} -1 & -1 \\ \hline -6x & 24 \\ \hline x & -4 \end{array}$$

$$x = -4$$

$$15.) -5 - x = 19$$

$$\begin{array}{r|l} +5 & +5 \\ \hline -x & 24 \\ \hline x & -24 \end{array}$$

$$x = -24$$